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INSERT TITLE HERE: Effects of Titles on the Emotional Perception of a Musical Work

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**INSERT TITLE HERE:**

Effects of Titles on the Emotional Perception of a Musical Work

Carle Jordan Wirshba, Christopher Bartlette, Ph.D., Vladimir Miskovic, Ph.D.

### Purpose
- To explore the impact of visual titles on the emotional perception within a piece of chamber music.
- Will the visual stimuli of text alter, enhance, or change the aural stimuli of the music in terms of an individual’s emotional response?

### Procedure
- An original multi-movement work for string quartet and piano, composed by Carle Jordan Wirshba, was used to explore these questions.
- The work, titled *Outside In*, comprised six movements, in which each movement was specifically composed to attempt to elicit a specific emotion.
- The intended emotions for each movement were:
  1) Joy 2) Anger 3) Sadness 4) Fear 5) Sadness 6) Disgust
- By splitting up participants and presenting them with varying visual titles, it could be assessed how (if at all) the visual stimuli affected the emotional response to the aural stimuli.

### Participants
- Participants were randomly assigned to one of three cohorts: an agreeing cohort, a disagreeing cohort, and a neutral cohort.
- The agreeing cohort was presented with titles that aligned with the above intended emotions, the disagreeing cohort received contrasting titles, and the neutral cohort received a randomly generated word for the title of the movement.

#### n = 86, total
- 46.5% Male, 51.2% Female, 1.2% Indifferent
- Mean Age = 31.7 y/o, Median = 22, Min=18/Max=78

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Male (%)</th>
<th>Female (%)</th>
<th>Indifferent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>53.6%</td>
<td>46.4%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Agreeing</td>
<td>46.7%</td>
<td>53.3%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Disagreeing</td>
<td>40.7%</td>
<td>55.6%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Movement</th>
<th>Neutral Cohort</th>
<th>Agreeing Cohort</th>
<th>Disagreeing Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joy</td>
<td>53.6% Male</td>
<td>46.7% Male</td>
<td>40.7% Male</td>
</tr>
<tr>
<td>Sadness</td>
<td>46.4% Female</td>
<td>53.3% Female</td>
<td>55.6% Female</td>
</tr>
<tr>
<td>Fear</td>
<td>3.7% Female</td>
<td>3.7% Female</td>
<td>3.7% Female</td>
</tr>
<tr>
<td>Disgust</td>
<td>1.2% Indifferent</td>
<td>1.2% Indifferent</td>
<td>1.2% Indifferent</td>
</tr>
</tbody>
</table>

### Measures
- **Differential Emotion Scale–IV (DES-IV)** (Izard, Libero, Patnum, & Haynes, 1993) – Wirshba and Bartlette Adaptation
- **The Self-Assessment Manikin (SAM)** (Bradley & Lang, 1994) – Only Pleasure and Arousal Variables (Excluded Dominance)

### Results Across Movement

#### The Emotion Keyboard
- **Valence Across Movements**
- **Arousal Across Movements**

#### Within Movements
- **Movement 1 - Emotion Keyboard**
- **Movement 2 - Emotion Keyboard**
- **Movement 3 - Emotion Keyboard**
- **Movement 4 - Emotion Keyboard**
- **Movement 5 - Emotion Keyboard**
- **Movement 6 - Emotion Keyboard**

### Discussion
- Although not significant, there is a trend that suggests visual titles affect the emotional impact of the music. We anticipate this trend to continue with further research.
- Visual titles have a significant effect on one’s perspective of pleasure, but not on their stimulation.
- For joy, sadness, and fear, the musical stimuli provoked similar responses regardless of the visual title. For anger and disgust, there was a broad range of emotional response. This suggests further consideration of the stimuli, which may be altered or replaced in further research.
- Within specific movements, differences in valence and arousal were significant. In movement 1 (joy), arousal increased with an agreeing title but further increased with negative title (p<.01). In this case, a disagreeing title enhanced the perceived emotional experience.
- In movement 5 (sorrow), the neutral and disagreeing titles resulted in significantly more positive valence (p=.015 and .011, respectively). When the musical stimuli retains some ambiguity, the visual title has a greater impact in swaying an individual’s emotional perspective.

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